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ABSTRACT

The primary goal of the Wisconsin Reading Task Force is the initiation and implementation of an immediate and ongoing program of statewide assessment of reading performance and reading instruction. The assessment plan looks at students in terms of two questions: How well is the student achieving in reading in comparison with other students in his class, his grade, and at his age across the city and/or nation? Can the student read the material that the school and society expect him to read? The first question was answered by looking at the standardized tests administered each year. An analysis of student achievement on these tests showed that Madison students do on the average read as well as or better than students from cities across the nation. The second question has not been fully assessed, and it is this question that the assessment plan is attempting to answer. Students focused upon in this plan were fourth, seventh, tenth, and twelfth graders. Reading was defined as an ability to gain information from what was read. The cloze test was used as the measuring instrument; this procedure was selected because of its utility, validity, and objectivity. The final report of this project is due to appear shortly. (WR)

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A DESCRIPTION OF AN ASSESSMENT OF READING LITERACY

A PILOT PROJECT OF A STATEWIDE READING ASSESSMENT MODEL

Conducted by

The Office of Research and Testing
in
The Department of Curriculum Development

Madison Public Schools

In cooperation with

The State Department of Public Instruction
and
The University of Wisconsin Instructional Research Laboratory

April, 1972

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PART I

PRELIMINARY COMMENTS

A Brief Historical Review

In 1969 President Nixon's Administration declared that the most important target for the decade ahead was the achievement of the "right to read" goal of literacy for all citizens.

In the spring of 1970, the Department of Public Instruction, in response, prepared a position paper entitled "The 'Right to Read': a Wisconsin Plan." The plan set as the primary goal of the Department of Public Instruction Reading Task Force the following: *To provide circumstances designed to instill the skill and desire necessary to read within the full limits of his capacity for every individual in our society.*

Within the context of this primary goal, the Reading Task Force had five action goals, one of which was...

> "The initiation and implementation of an immediate and ongoing program of statewide assessment of reading performance and reading instruction within the State of Wisconsin."

To this end an assessment committee was charged with the task of developing a plan for assessment of reading literacy. In March of 1971, Dr. John Gottman, a staff member at the University of Wisconsin Instructional Research Laboratory, submitted such a plan to the Department of Public Instruction.

It is this plan that the Madison Public Schools, in cooperation with the Instructional Research Laboratory and Department of Public Instruction, is piloting.

The Scope of the Assessment Plan

An assessment of a reading program could possibly examine that reading program from a number of points of view. It could look at teacher background and expertise. It could look at teacher behavior in the classroom. It could look at teacher-education (pre-service and inservice) programs. It could look at the books and materials used in a reading program. And finally it could look at the student to see how well he is reading.

The assessment plan presented here chose to look at the student. When looking at the student these two questions come to mind. 1) How well is the student achieving in reading in comparison with other students in his class, his grade and at his age across the city and/or nation? 2) Can the student read the material that the school and society expect him to read?

The answer to the first question can be found by looking at the standardized reading tests typically administered each year. In Madison we administer a number of such tests. For instance, this year we are using the following:

- Grade 1. The Clymer-Barrett Reading Readiness Test
- Grade 2. The Gates MacGinitie Reading Test
- Grade 3. The Gates-MacGinitie Reading Test
- Grade 4. The STEP Reading Test
- Grade 5. The STEP Reading Test
- Grade 8. The STEP Reading Test

Each of these tests with the exception of the readiness test typically contain a vocabulary section and a comprehension section. In the comprehension section students read a number of prepared paragraphs and then respond to carefully constructed multiple choice questions.

An analysis of student achievement on these tests shows that Madison students do on the average read as well as or better than students from other cities across the nation. This might lead members of the community to be satisfied with the instruction children are receiving in school. When looking at student groups within the city, the analysis reveals differences among groups of students. This naturally raises questions regarding factors that might contribute to the differences.

When carefully thought out questions are raised, answers should be systematically prepared. These questions would likely fall in the areas of the nature of instruction, the equality of instruction, and differences in social economic backgrounds of students. In the main, it appears that the Madison Board of Education, through the schools, materials, teachers and support personnel, is providing children with quality instructional experiences. Once again though, it should be noted that the answer to the question "Do Madison students achieve in reading as well as other students across the nation?" is yes.

The second question "Can the student read the material that the school and society expect him to read?" is quite different from the first. A completely different type of information is required before this question can be answered. It is this question that the Reading Assessment plan attempts to answer. Therefore, the rest of this paper deals with how the Madison Public Schools in cooperation with the Wisconsin Department of Public Instruction and the University of Wisconsin Instructional Research Laboratory set about to answer this question.

The Nature of the Assessment Plan

To introduce the nature of the assessment plan used in Madison, a number of clarifying questions about "Can students read the material that school and society expect them to read?" are raised and answered.

Question: Is this question usually asked and answered?

Answer: Asked, yes. Answered--well, teachers sensitive to reading know part of the answer, but actual data is not systematically gathered. Because of this, Madison is engaged in a unique assessment.

Question: Who are "the students"?

Answer: Students focused upon in this plan were fourth graders, seventh graders, tenth graders and twelfth graders.

Question: What does "read" mean?

Answer:
- "Read" sometimes means "to be able to associate the correct sound with the given letters in words." By listening to a child, another person could tell if he were "sounding out" the words in the message.
- "Read" can mean "to be able to comprehend or understand what is written." This definition approaches what we mean here by "read." The problem becomes what is meant by comprehend.
- So more specifically, "read" for us was defined as "the ability to gain information from what was read."

Question: What is meant by "material?"

Answer: Anything printed that schools and society give to, address to or suggest to students at a particular age. For instance, society seems to expect 12th graders to "read" financial contracts; the publishers of the magazine Boy's Life expect 7th graders to be able to "read" Boy's Life.

Question: How do you measure whether or not students can "read" (gain information) from a chosen piece of material?

Answer: - One way is to talk to the student and find out what information he gained from the message. Of course, this is impractical and may prove to be unreliable (too much left to interpretation on the part of the interviewer).

- Another way is to carefully construct multiple choice questions as the standardized test people do. This would be quite an undertaking when you consider the number of different materials you would like to find out if students could read.
- A third method of measuring whether or not students are gaining information is the cloze test of reading comprehension.

This reading assessment uses the cloze test.

End of Questions? -

You have at this point just finished reading the preliminary comments. If we have written well, you should be able to answer these general questions. (1) Who initiated the reading assessment? (2) What primary question is the reading assessment asking? (3) What other questions about reading are asked and how are these answered if not by this assessment? (4) In the assessment, who is assessed, what is assessed, and how is it assessed?

If you are unsure of the answers, jot down questions that you would like to ask.

The following sections will include: (1) What is the cloze test? (2) Why use it? (3) How does the cloze test relate to literacy? (4) How was the assessment set up? (5) What questions should the assessment raise?

PART II

WHAT IS THE "CLOZE TEST"?

To explain what the cloze test or procedure is can perhaps best be accomplished by describing the procedures for using it. Bormuth (1968a) set forth five succinct steps: a) a passage is selected from given materials, b) every fifth word in the passage is deleted and replaced by underlined blanks of equal length, c) the passage (test) is then duplicated and given, without time limits, to students who have not read the material from which the passage was taken, d) students are instructed to write in each blank the word they think was deleted, e) responses are scored correct when they exactly match (disregarding minor misspellings) the words deleted. According to Bormuth, "When the tests have been made properly, a student's score can be interpreted as how well he understands the materials from which the tests were made."

On the following page you will find a sample cloze test. This passage was taken from a pamphlet on bicycle safety and is published by the State of Wisconsin Division of Motor Vehicles and is distributed to young bicyclists.

RULES FOR BIKE DRIVERS

. Drive close to the right side of the _____,

single file, and pass _____ cars with care.

. Sit _____ the bicycle seat when _____,

and never carry extra _____ -- no "trick" riding.

. Never _____ rides on other vehicles.

. _____ carry loads which prevent _____

from keeping at least _____ hand on the handlebars

_____ all times. (Or better, attach a basket to

your bike for packages, so you always have both hands free

for driving.)

The correct answers to this cloze test are 1. road 2. parked 3. on 4. riding 5. passengers 6. hitch 7. never 8. you 9. one 10. at

The cloze test since its conception (Taylor, 1953) has been used in two ways. First, it has been used as a readability procedure to determine the appropriateness of instructional materials for children. And second, it has been used as a measure of students' ability to comprehend (gain knowledge from) materials. The two uses are not really different for the cloze procedure in determining the appropriateness (readability) of material does so by measuring if the student can understand the material. The difference in the two uses is simply the focus -- the material or the students' performance.

The cloze procedure is not a "half-baked" technique. A recent comprehensive bibliography on the cloze (Klare, 1971) lists 159 articles and/or research reports on the use of cloze. A check of the titles suggests that 39 of the entries deal with cloze as a readability measure and 105 discuss the cloze and its relation to comprehension. One of the foremost experts on the cloze, author of 20 of these entries, is Professor John Bormuth of the University of Chicago. Dr. Bormuth is serving as a consultant to this assessment project.

PART III

WHY USE THE CLOZE?

Reasons for using the cloze procedure in the Madison assessment are discussed below under these three headings: utility, validity and objectivity.

Utility of the Cloze Procedure

In order to answer the question "Can students read the material that the school and society expect him to read?" it was necessary to test students on a wide variety of materials. (For a complete listing of the 10 domains and 60 categories, see p. 16 in this paper and Appendix A, p. 21.) The cloze procedure can be used on any material containing more than eleven words. Consequently, once the materials of concern are identified, it is quite easy to turn them into a test by using the cloze procedure. This allows the test constructor to forego the lengthy and arduous task of constructing questions and establishing their reliability and validity before the test is ready to be used.

Another utility feature of the cloze procedure has been suggested earlier. This has to do with what might be called the "double duty" aspect of the cloze test. As you recall, results on the cloze test can be looked at as saying something about both the students' ability and the material.

Validity of the Cloze Procedure

When asking if the cloze procedure is valid, one is in essence asking "Does the cloze test in fact do what it purports to do--namely (1) measure the comprehension difficulty of the material, and (2) measure the comprehension ability of the student? To answer this question, the validity of the cloze procedure is discussed under the sub-headings of (a) logical validity and (b) concurrent validity.

Logical validity

In establishing logical validity, or face validity as it is also referred to, the target (the cloze procedure) is focused on through reflective glasses. In fairness to this reflective process, go back to

the one cloze test included in this paper (p. 7) and think about it and what you did as you were "guessing the missing word." Hold these thoughts in your mind as you read below some comments Bormuth (1968a) has made about the logical validity of the cloze procedure.

> *"Similarity to Conventional Tests: At first glance a cloze readability test appears to be a completely different kind of test and some authors have made much of this fact, attempting to construct all sorts of mystical theories about cloze tests. Some have professed to see a similarity between the processes involved in responding to a cloze test and the clozure phenomenon observed in the perception of geometric figures. Indeed, it was from just this kind of conjecture that cloze procedure got its name.*
>
> *"On closer inspection it can be seen that many of the items in cloze readability tests are identical to those found in reading comprehension tests made by conventional methods and that the processes required to fill cloze blanks are probably not different from those required to answer conventionally made items.*
>
> *"Conventional completion test items are made by simply deleting a word or phrase from a sentence. For example, given the sentence "The boys rode horses," it is possible to make the completion questions, ----rode horses, The boys ----, The boys ---- horses, and The boys rode ----. The familiar wh- questions are made in much the same manner. A word or phrase is deleted, a wh- phrase is inserted in its place, and the sentence is transformed so that it begins with the wh- phrase. This gives the questions. "Who rode horses? What did the boys do? What did the boys do to the horses? and What did the boys ride?" As in cloze tests, the correct answers to these questions are the words or phrases deleted.*
>
> *"Contrasts with Conventional Tests: But items made by cloze and conventional test making procedures differ in several important respects. First, in a cloze readability test, only one word is deleted at a time while in conventional tests, whole phrases and clauses may also be deleted.*
>
> *"A second major difference is the fact that cloze readability tests are made only from the sentences in the text while conventional test items may be made either from sentences in the text or from the sentences that can be derived from the text.*

"Another major contrast is the fact that cloze readability tests are taken by students who have not read the undeleted version of the passage.

"Probably too much has been made of these contrasts between cloze and conventional tests. The student has eighty percent of the text on which to base his responses, so his responses very much depend on his ability to understand the text. Also, the fact that he has not read the original text may require that he use processes similar to those required to answer questions made from derived sentences plus a sensitivity to the author's style and the tone of the passage. However, the contrasts do exist and so the question must be referred to the researcher, the final arbiter of such disputes."

Bormuth in the comments above has chosen to establish the logical validity of the cloze procedure by comparing and contrasting the cloze procedure with conventional tests. In so doing, Bormuth points out that while the cloze procedure appears to be different, the correct answers for the cloze are frequently the identical answers required by a more conventional test question. In addition, Bormuth suggests that in order for the student to respond with the correct word in a cloze blank, he needs:

1. to understand the meaning of the words that are used,

2. to attend to the relationships that exist within the sentence, and

3. to respond to the author's tone and style.

This process above does, in fact, seem to be the process a reader goes through as he takes a cloze test. This also seems to be a logical description of what a reader has to do in an effort to comprehend (gain information) from a message.

Concurrent validity

When turning to concurrent validity, the reflective process involved in establishing logical validity is put aside. In its place the researcher, or final arbiter as Bormuth labels him, with his tools and skills assesses the topic. Here is a summary of what some researchers have found in answer to the two questions asked in regard to the cloze procedure.

1. Does the cloze test procedure measure the comprehension difficulty of the material? Bormuth (1968a) reports:

> *"The mean percent of items a group answers correctly on a cloze readability test seems to provide an accurate measure of the difficulty of the passage, almost regardless of how difficulty is measured. Shiba (1957) found a correlation of .83 between the cloze readabilities of passages and the combined subjective ratings of the passages by three judges. Bormuth (1966) found a correlation of .92 between the cloze readabilities of passages as measured by multiple choice tests. Subsequently, Bormuth (1968b) used each of the four forms of the Gray Oral Reading Paragraphs. He found correlations ranging from .90 to .95 between the cloze and word recognition difficulties of the paragraphs and correlations ranging from .91 to .98 between the cloze and the comprehension difficulties of the paragraphs."*

2. Does the cloze test procedure measure the comprehension ability of the students? Bormuth (1969b) reports:

> *"Nearly all of the research has shown that scores on cloze tests are highly correlated with scores on standardized tests of reading comprehension ability. For example, Jenkinson (1957), Ruddell (1963), and Bormuth (1965) found correlations which generally ranged from .70 to about .85.*

Objectivity of the Cloze Procedure

The third reason for using the cloze procedure is its objectivity. The construction of the cloze test is very straight forward. Once materials are selected, explicit rules for deleting words are followed. Actually the rules for selecting the materials themselves are explicit once a type of material has been decided upon.

Scoring of the cloze test, while time consuming, is quite objective when the correct response is the actual word that has been deleted. The only judgments scorers need to make are related to spelling. Then, if the word is recognizable, it is accepted.

An additional feature of objectivity is that is is difficult if not nearly impossible to "teach for the test." The test is not a knowledge test. The test samples an extremely wide body of actual passages. If the student had been given practice working the cloze procedure and was able to do well on the cloze test--great! After all, we want students to have the skills needed to respond well on the cloze--if they have those skills, they can read! (During the test situation, students are given a sample cloze test to "warm-up" on.)

PART IV

HOW DOES THE CLOZE TEST RELATE TO LITERACY?

What Is Literacy?

Bormuth (1970, pp. 1-2), in the three paragraphs below, discusses the importance of literacy and what literacy is and is not.

> *"Most people agree that the ultimate purpose of reading instruction is to enable students to understand what they read. Without the literacy skills it is impossible for a person to claim his birthright as an American; in school and throughout his life a person must rely upon his literacy skills in critical ways. If as a student he is unable to understand his textbooks, he is almost certainly destined for failure and early drop-out, making it difficult for him to obtain a steady and desirable job. Thereafter, it is difficult for him to study the materials that could provide him with the technical training necessary to improve his employability. He is effectively disenfranchized by his curtailed ability to inform himself on political issues. And he is denied access to the rich cultural heritage embodied in our literature. In short, he is forced to live on the margins of our society.*

"A decade or two ago much of the public and many educators adopted an over-simplified view of the nature and cause of the illiteracy problems in this country, a view that laid most of the blame on the schools' failures to provide early and systematic instruction in phonics. The reasoning behind this position was fairly sound in some respects: it was argued that a person who cannot at least identify the words on a page cannot possibly understand what those words mean. Furthermore, there was considerable justification at that time for the charge that phonics instruction in the schools was neither systematic nor very effective. However, this almost exclusive attention given to mastery of the simple skills that enable a child to call, or pronounce, the words he sees in print has left most of the public and many educators with a dangerously narrowed concept that equates a child's ability to call words with literacy.

"In point of fact the ability to call words when taken by itself represents a set of skills of relatively little importance. For example, most readers can pronounce the nonsense words in the sentence The Daxes worgged the bofuds in the waygup. But certainly no one would claim that he derived any social, economic, or intellectual benefit from doing so, because he obtained no information from the sentence. Hence the value we derive from reading does not come from the mere pronunciation of words but rather from the information we obtain by subsequently comprehending the information represented by those words. When we speak of literacy, then, we are really referring to a complex act consisting of both word recognition and the comprehension that follows. Any narrower conception of literacy is both trivial and absurd."

In summary, Bormuth associates literacy with the ability to read. For Bormuth the ability to read is synonymous with the ability to gain information. The process of gaining information is viewed as a complex act consisting of both word recognition and comprehension.

The question we are asking in the reading assessment is "Can students gain information from the materials that society and school expect them to be able to read?"

Determining Literacy

One way of measuring whether or not students are gaining information would be to give them a multiple choice test before they

read a passage; then let them read the passage; and then give them the multiple choice test again. By subtracting the number correct on the first test from the second test you have an index of the information gained.

In essence, Bormuth (1969a) did what was just described. But, he took the procedure one step further. Using the cloze procedure, he tested students to determine their cloze test scores on the passages. Then by using appropriate statistical procedures (a regression model) which related the cloze score to the multiple choice test index of information gain, Bormuth was able to turn the cloze score itself into a comparable index of information gain.

It appears (Bormuth, 1969a, 1971) that when a student scores about 35% correct on the cloze test, he is gaining little or no information from the passage. Students, then, who score 35% on the cloze test over given material are at best only minimally literate with respect to that material.

This reading assessment is asking whether or not students are minimally literate with respect to the material they are expected to read.

The ideas presented in the last few paragraphs represent a reduction of an extensive body of research. At best the presentation is simplistic. Hopefully, you will read and reread these paragraphs with this in mind. If questions persist, jot them down, ask for clarification, go to the references listed, etc.

PART V

THE DESIGN OF THE READING ASSESSMENT STUDY

What Materials Were Actually Used?

If we are assessing the literacy of students with respect to certain materials, a reasonable question is "What are the materials?"

Appendix A contains a complete list of materials by domain and category.

Before you read on, take a look at Appendix A.

In Appendix A after each category, the grade level at which these kinds of materials were used is indicated. Also, if the same representative sample from a category of material was used at more than one grade level, it is indicated. For instance, in the domain Reference Materials the passages used within the category "Telephone directory" were the same at all four grade levels. On the other hand, the passages from the category "Encyclopedia" differed at grades 4, 7, and 10 because students use or are provided with different encyclopedias at the different grade levels.

Who Determined What Materials Should Be Used?

A brainstorming process that took place over a number of days and involving a number of people was used to develop the list of materials represented by the sixty categories. The people involved included thirty-nine teachers and administrators (many of whom were parents) from Madison and neighboring communities.

Once the categories were established the actual gathering of sample messages was done in a systematic and replicable way. For instance, sample messages in the category "Promotional literature on new cars" were gathered by soliciting new car dealers chosen at random. Sample messages in the category "Newspapers" were gathered by randomly and systematically sampling the lead news stories, editorials, feature stories, political features in the Milwaukee Journal.

Materials were assigned as "appropriate and expected to read at grade 4, etc." by one of two methods. One, the material assigned itself. Textbooks purchased for fourth graders are for fourth graders. Recreational department bulletins distributed to fourth graders are for fourth graders, etc. Two, for those materials whose grade level placement was not clear cut, sewing directions, newspapers, consumer magazines, etc., placement was based on the results of a survey of twenty members of the Madison Public School's Curriculum Department. The survey asked them for their opinion regarding the placement of materials in light of school and societal expectations.

The Passage Size and Preparation

The actual number of passages used to represent each category varied. At times it was three, at other times it was as high as fifteen. Each passage used was randomly selected from the sample of passages that had been gathered.

Passages were about sixty words in length. Each passage contained ten blanks. The passage on page seven is an actual passage

that was used. As a matter of fact, all students at all grade levels were tested on this passage. For comparison sake, this became an important passage. In the analysis of results, it is referred to as the "common passage."

Using appropriate sampling techniques, each of the fourth graders tested responded to 8 of the 144 test passages plus the common passage. Each seventh grader tested responded to 6 of the 216 passages plus the common passage. Each tenth and twelfth grader responded to 10 of the 300 passages plus the common passage.

The Population

At grade four, 40% of the fourth grade population were included in the assessment. These 1,066 students were selected through a stratified random sampling technique. At grades 7, 10, and 12 all students in attendance on the day of the test were included in the assessment.

PART VI

QUESTIONS THE ASSESSMENT WILL HELP TO ANSWER AND ADDITIONAL QUESTIONS THAT MIGHT BE RAISED

The questions presented under the following two headings are only representative of a larger body of questions. Do add your own!

Questions the Assessment Will Help to Answer

- Can students read the textbooks that the Board of Education is purchasing for them?

- Can students read other school related materials such as reference materials and paperback recreational literature?
- Can students read recreational materials provided for them by the public library?
- Can students read safety messages they are likely to encounter, e.g., warnings on packages, warnings on power tools, directions for using and dispensing drugs?
- Are there more girls who are minimally literate than there are boys?
- Are there differences in the percent who are minimally literate among the attendance areas across the city?
- To what extent are factors such as social economic level, interest in reading, level of parent education, type of school organization, type of school reading program, etc., contributing to literacy differences?

Additional Questions That Might Be Raised

- Do we have an adequate understanding of the reading process?
- Is it reasonable to expect elementary school child to comprehend expository materials which require him to understand abstract logical relationships that are outside the realm of his personal experiences?
- Do unsuccessful reading experiences lead to negative attitudes toward reading? Do these negative attitudes largely prevent the school from doing effective remedial work later on?

- To date, most studies indicate that it is the teacher rather than the program that makes a difference in the students' acquisition of reading skills. If so, what are the teacher skills or teacher strategies that are most successful?
- Are there approaches to reading instruction that are not now used in Madison that may offer better alternatives to producing literate readers?
- Are there teaching skills that teachers should be taught to use that can help to prepare a student for his reading of a textbook lesson?
- To what extent are instructional packets produced locally readable for the students for whom they are intended?
- Is it valid to assume that we can move to an individualized curriculum if that curriculum is based heavily on written materials that many students may be unable to read?
- How readable are the ungraded materials being placed in our instructional materials centers and resource centers?

APPENDIX A

DOMAINS AND CATEGORIES

	Grade Level Used
A. Recreational Literature:	
1. Magazines (3)+	4-7-10-12
2. Stories dealing with family relationships (3)	4-7-10-12
3. Animal stories (3)	4-7-10-12
4. Patriotic stories (3)	4-7-10-12
5. Biographies (3)	4-7-10-12
6. Adventure stories (3)	4-7-10-12
7. Student newspapers (3)	4-7-10-12
8. Mystery stories (3)	4-7-10-12
B. School:	
1. Student handbook (3)	7-10-12
2. Paperback list (15)	4-7-10-12
3. Standardized test instructions (5)	4-7-10-12*
C. Automobile:	
1. Promotional literature on new cars (3)	10-12*
2. Auto insurance promotion (3)	10-12*
3. Automotive license manual (3)	10-12*
4. Automotive driving tips (3)	10-12*
5. Operator's and owner's manual (3)	10-12*
6. Penalty point literature (3)	10-12*
D. Citizenship:	
1. Wisconsin Constitution (3)	10-12*
2. Voting directions (3)	12*
3. Newspapers (40)	7-10-12*
4. Referenda statements (27)	12*
E. Leisure-time Activities:	
1. Rule books (sports) (3)	7-10-12*
2. Directions for assembling toys (3)	7-10-12*

+ Number indicates the quantity of passages which will represent that category.

* Indicates all grades involved received the same passages.

E. Leisure-time Activities: (Continued)	Grade Level Used
3. Recreation department bulletins (3)	4-7-10-12
4. Directions for games (3)	4-7-10-12*
5. T.V. Guide (3)	4-7-10-12*
6. Boy/Girl Scout Manual (3)	4-7-10-12*
7. Directions accompanying sewing patterns (3)	4-7-10-12*
F. Occupational:	
1. Vocational School annual ad (3)	10-12*
2. Instructions on job applications (3)	10-12*
3. Civil Service test applications (3)	12*
4. Armed Forces promotional literature (3)	10-12*
5. Prospective careers promotional literature (3)	10-12*
6. Instructions for filling out forms (3)	10-12*
7. School catalogs (3)	10-12*
G. Reference Materials:	
1. Road maps (3)	7-10-12*
2. Telephone directory (3)	4-7-10-12*
3. Encyclopedia (3)	4-7-10-12
4. Reference books (3)	4-7-10-12
H. Safety:	
1. Fire Department literature (3)	4-7-10-12*
2. Airplane emergency literature (3)	4-7-10-12*
3. Civil Defense instructions (3)	4-7-10-12*
4. Bicycle and pedestrian rules and fire evacuation (5)	4-7-10-12*
5. Warnings on commercial packaging (10)	4-7-10-12*
6. Heart, Cancer, and Red Cross literature (3)	7-10-12*
7. Directions for power tools (3)	7-10-12*
I. Consumer Material:	
1. Junk mail (3)	7-10-12*
2. Messages on packages (3)	4-7-10-12*
3. Recipes (3)	7-10-12*
4. Catalogs (3)	7-10-12*
5. Contractual agreements (3)	12*
6. Banking promotional literature (3)	10-12*
7. Financial planning literature (3)	10-12*

I. Consumer Material: (Continued)	Grade Level Used
8. Advertisements (3)	7-10-12*
9. Conservation/ecology literature (3)	7-10-12*
10. Consumer magazines (3)	10-12*

J. Textbooks:	
1. Language Arts and Reading (12)	4-7-10-12
2. Social Studies (12)	4-7-10-12
3. Science (12)	4-7-10-12
4. Mathematics (12)	4-7-10-12

TOTAL - 300 representative passages

Numbers:

A. 60 categories in 10 domains.

B. 300 passages to represent these.

C. 4th Grade: 18 different booklets of 9 tests each to cover 144 passages.

D. 7th Grade: 36 different booklets of 7 tests each to cover 216 passages.

E. 10th and 12th Grades: 30 different booklets of 11 tests each to cover 300 passages.

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